



# Writing and Speaking Tutorial Services

## *Writing Lab Reports*

### **Guiding Principles**

1. Following the prescribed format for a lab report shows appreciation and respect for the field, so in general, deviations from the usual format are not necessary.
2. The value of a lab report comes from the research behind it, not from how beautifully it is written. With that in mind, keep sentence structure manageable. Also, lab reports are always written in passive voice, and in third person. Overall, the report should be easy to read with no additional effort on behalf of its reader.
3. Include everything that is necessary, but nothing extraneous. Lab reports will inevitably require a large amount of explanation, explication, and numbers. Include all of these; everything should be explained in its entirety. However, don't include anything that doesn't need to be included. It can detract from the overall quality of the report, and make the report seem juvenile and unacceptable from a professional standpoint.

### **General Format**

1. *Abstract.* The first portion of the lab report, the abstract, is like a summary of the lab report. What research was done? It should be about a paragraph long, and touch on the main points of the report, including methods and conclusions, but not include any specific data.
2. *Introduction.* The introduction discusses the background of the research. This would include the reason the research was done, and any previously done research in a similar

field, kind of like a very small literature review. It also may include any institutional information, and basic information about the author, but this is not necessary.

3. *Methods and Materials.* This section will be one of the longest section. In this section, discuss every single step in the research process, and include information about everything that was used, including exact numerical data. Explain everything to the smallest detail. Don't assume the reader knows anything about this particular scientific subject. Explain the experiment to a five-year old. If he could not replicate the experiment in its exact entirety, it has not been explained thoroughly enough.
4. *Results.* This section should probably include lots of charts, graphs, and other displays of the data extracted from the experiment. The results section lists every single result, in different permutations, in varying charts. However, it does not discuss the impact of the study; that comes in the next section.
5. *Discussion and Conclusion.* This final section of the lab report is like the conclusion of an academic paper: it addresses the question of 'so what'? What is important about this research? Why should a reader be interested in it, and what kind of impact will it have? The discussion section answers all of these questions coherently, in as few words as possible. Again, as stated before, answer the questions in their entirety, but don't include any extraneous words. Finally, discuss the future of this research. Where could science go from here?